HANDSWORTH

URBAN DISTRICT.

REPORT

ON THE

SANITARY CONDITION OF THE DISTRICT

FOR THE

YEAR ENDING DECEMBER 31ST, 1898,

BY

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Handsworth Urban District.

TO THE

URBAN DISTRICT COUNCIL OF HANDSWORTH,

IN THE COUNTY OF STAFFORD.

Mr. Chairman and Gentlemen,

I beg to present to you herewith my Annual Report on the Sanitary Condition of your district for 1898.

I have the honour to be, Gentlemen,

Your obedient Servant,

JAMES RICHMOND.

The Council House,

Handsworth,

March 1st, 1899.

ANNUAL REPORT

of the Medical Officer of Health to the Urban District Council of Handsworth, Staffordshire, for the year 1898.

PHYSICAL FEATURES OF THE DISTRICT.

Handsworth has an area of 3,638 acres and occupies the extreme South East corner of the County of Stafford, being at the County Boundary in close relation with Aston Manor and Birmingham. On the North and West it is bounded by the sparsely inhabited parts of the Perry Barr Urban District and of the County Borough of West Bromwich, whilst on the South it is continuous with the Smethwick Urban District. The surface is undulating, and its height above the sea level varies from 570 to 300 feet. On the North and East the natural drainage is towards the river Tame, and on the South and West towards the Hockley Brook. The sub-soil is mainly sand and gravel, with, here and there, limited deposits of clay. The district lies on the "New Red Sandstone" formation.

VITAL STATISTICS.

I.—POPULATION.

The population at the middle of the year is estimated to have been 43,500, giving a density of population of 11·9 persons per acre. The rateable value in November was, for houses £191,276 13s. 0d. and for land £4,004 15s. 0d.

The rapidity with which the District has grown is shown by the following figures :—

Census 1871	...	Pop. 14,947	..	Houses 2,790	...	Persons per house 5·36
,, 1881	...	,, 22,896	...	,, 4,801	...	,, ,, 4·77
,, 1891	...	,, 32,756	...	,, 6,771	...	,, ,, 4·837
Estimated 1898		,, 43,500	...	,, 9,167	...	

The estimated number of inhabited houses and the estimated population of each ward at the middle of the year were as follows :—

		Houses.			Population.
Birchfield Ward	...	1,954	...	...	9,270
Heathfield ,,	...	1,688	...	...	8,019
Murdock ,,	...	2,021	...	...	9,588
Sandwell ,,	...	1,707	...	...	8,098
Soho ,,	...	1,797	...	...	8,525

In Murdock ward the dwellings of the working-class preponderate, and many of the inhabitants work in Smethwick.

There are few manufactures in Handsworth. The persons employed at the largest factory (Kynoch's) live mainly in Aston. There is scarcely any communication between Smethwick and Handsworth among the population of the school-age, whilst between Birmingham (with Aston) and Handsworth the circulation of this population is active and constant. The result is seen in the agreement of the notifications of Infectious Disease in Handsworth with those of Birmingham and Aston, whilst there is no apparent relation between Handsworth and Smethwick in this respect.

II.—BIRTHS.

One thousand two hundred and thirty-one births were registered in the district during the year ; of these 619 were males and 612 females. The birth rate per thousand of population was 28·3. In 1897 the birth rate was 24·4.

The births were distributed as follows :—Birchfield Ward 277, Heathfield Ward 184, Murdock Ward 358, Sandwell Ward 249, Soho Ward 163. The birth rates per thousand of the estimated population of the several wards were, therefore—Birchfield Ward 29·9, Heathfield Ward 22·9, Murdock Ward 37·2, Sandwell Ward 30·7, Soho Ward 19·1.

III.—DEATHS.

Five hundred and seventy-six deaths occurred during the year. Of these 535 were registered in the district, 31 occurred in the West Bromwich Union Workhouse, 1 in the Infectious Hospital at West Bromwich, and 14 elsewhere. Five deaths registered in the district are excluded because the persons did not belong to the district. Coroner's inquests were held in 25 cases, *i.e.*, in 4·9 per cent. of the 535 cases registered in the district. The cause of death was not certified in 8 cases, *i.e.*, in 1·4 per cent. of the whole number.

The death rate was 13·2. The death rate was 12·1 in 1897.

In table I. the birth rate and death rate for 1898 are compared with those of preceding years.

TABLE I.

Years	Population Yearly	Births Yearly	Birth-rate per 1000 Yearly	Deaths Yearly	Death-rate per 1000 Yearly
5 Years 1871-75	16735	557·8	33·3	262·2	15·9
5 Years 1876-80	20710	664·4	32·08	298·8	14·4
5 Years 1881-85	25148	761·8	30·2	351·6	13·9
5 Years 1886-90	30073	789	26·2	367·4	12·2
5 Years 1891-95	36350	916	25·2	453	12·2
1896	40600	1053	25·9	543	13·4
1897	41600	1017	24·4	505	12·1
1898	45500	1231	28·3	576	13·2

IV.—Ages at Death.

(*a*) *Infantile Mortality.*—The number of deaths registered at ages under one year was 181, giving a mortality per 1000 births registered during the year, of 147. The corresponding figures for previous years are given in Table II.

TABLE II.

Years	No. of Births Yearly	Number of Deaths under one Year, Yearly	Deaths per 1000 Births Yearly
5 Years 1871-75	557·8	66·4	119
5 Years 1876-80	664·4	79·6	119
5 Years 1881-85	761·8	87·4	114
5 Years 1886-90	789	100·4	127
5 Years 1891-95	916	135	126
1896	1053	153	145
1897	1017	142	140
1898	1231	181	147

There was an increased mortality, 52, among infants from all zymotic diseases as compared with 43 deaths in 1897, and from developmental diseases, 39 as compared with 21 in 1897.

One infant died in the Workhouse.

The deaths of infants occurred in the several wards as follows :—Birchfield, 40 ; Heathfield, 21 ; Murdock, 66 ; Sandwell, 36 ; Soho, 17.

The Infantile death rates for the several wards may now be compared with the figures for 1896-7.

	1898	1897	1896
Birchfield Ward ...	144	167	134
Heathfield ,, ...	114	123	158
Murdock ,, ...	183	149	191
Sandwell ,, ...	144	108	100
Soho ,, ...	104	147	151

During the five years 1894-8, 5218 infants were born and

691 died giving a mortality of 132·3 per thousand births. The following table gives the deaths at 8 groups of ages below 12 months and the corresponding rates per 1000 births.

TABLE III.

Age group	Deaths	Rate per 1000 Births
Under 15 days old	153	29·3
15 days to 1 month	48	9·2
1 month to 2 months	72	13·8
2 ,, 3 ,,	65	12·4
3 ,, 4 ,,	54	10·3
4 ,, 5 ,,	48	9·2
5 ,, 6 ,,	49	9·4
6 ,, 12 ,,	202	38·7

This table shows that 338 of the 691 infants who died, *i.e.*, nearly one half, died before they were three months old.

(*b*) *Death rates at various age-groups.* The next table is constructed on the assumption that the relative proportions of persons alive at each group of ages were the same in 1898 as in the census-year 1891. The death rates at the various age-groups are then compared with the death rates of the same age-groups during the four years 1894-97 in Handsworth and with those of the ten years 1881-90 in England and Wales. The table shows that at all-age groups, except that of persons 75 years old and upwards, the death rates are below those of the corresponding age-groups in England and Wales in the decade 1881-90. It also shows that the death rates of the groups 0—5 years and 75 years and upwards, that is to say, at the extremes of life are greater than the mean death rates of the same groups during the years 1894-97 in Handsworth.

TABLE IV.

Years		AGE GROUPS.								
		Years 0-5	Years 5-15	Years 15-25	Years 25-35	Years 35-45	Years 45-55	Years 55-65	Years 65 75	Years 75 and above
1894-7	No. of Deaths yearly	186	18	21	23	27	42	50	62	55
1898	,, ,,	231	21	21	24	39	37	66	63	74
1894-7	Death-rate yearly	42·1	2·1	2·4	3·5	5 8	12·4	25·0	54·1	141·0
1898	,, ,,	48·0	2 2	2·2	3·4	7·8	10·9	29·0	51·5	175·2
1881-90	Death-rate yearly England & Wales	56·8	4 2	4·9	7·5	11·4	17·1	31·3	64·6	153·7

At ages below five there were 231 deaths, or 43 per cent. of the total number of deaths, whilst at ages above 65 years there were 137 deaths, or 23·6 per cent. of the total number of deaths.

To reduce the death rate to that of the "Standard Population" of England and Wales, the crude rate of 13·2 must be multiplied by the factor 1·11405, which I have calculated on the basis of the census at Handsworth, 1891, and the death rates for England and Wales for the separate sexes at the various age-groups in the years 1881-90. If Handsworth had the same age and sex constitution as England and Wales, the death rate in 1898 would therefore be 14·7 compared with 13·4 in 1897.

V.—THE CAUSES OF DEATH.

Infantile Mortality, according to the causes of death.—In the years 1894-1898 the average infantile mortality was 132·3.

The following table shows how this mortality may be divided according to the causes of death :—

TABLE V.

Causes of Death.	No. of Deaths.	Rate per 1000 Births.
Diarrhœa (including gastro-enteritis, etc. ...	193	36·9
Other Zymotic diseases	56	10 7
Parasitic diseases	4	0·7
Dietic diseases	1	0·2
Tuberculous diseases	16	3·0
Constitutional diseases (other than tuberculous)	6	1·1
Developmental diseases	133	25·5
Diseases of the Nervous System	51	9·8
Diseases of the Circulatory System	3	0·5
Diseases of the Respiratory System	96	18 2
Diseases of the Digestive System (not including Enteritis, etc.)	15	2·9
Diseases of the Urinary System	5	0 9
Violence	3	0·5
Debility, Atrophy, Inanition	67	12·8
Found dead in bed	9	1·7
Other ill-defined causes of death	30	5·7
Other causes..	3	0·5

Excluding the developmental diseases which are the chief causes of death within the first two weeks from birth, the chief causes of death are in order of importance (1) Diarrhœa, (2) Diseases of the lungs, (3) Wasting (Atrophy, &c.) (4) the Zymotic Diseases other than Diarrhœa, and (5) Diseases of the Nervous System, principally "Convulsions."

The causes (1) (3) and (5) have an intimate relation with the mode of feeding infants, (2) has an intimate relation with the insufficient protection of infants from cold.

In 1898, of the 180 children who died at ages below twelve months it was found that 48, being born prematurely or dying shortly after birth, might be excluded from an inquiry as to the mode of feeding. Of the remaining 132, 17 only were fed at the breast, 97 were brought up by bottle, 9 had breast-milk and bottle, and in 8 cases the mode of feeding could not be ascertained, the parents not being found. Thus nearly three quarters (73 per cent.) of these 132 children who died from all causes were brought up by hand. Diarrhœal diseases caused the deaths of 2 breast-fed children, 54 hand-fed children and 2 who had breast-milk as well as bottle. Atrophy, &c., caused the death of no breast-fed child, but was the cause of the death of 12 hand-fed children, and of one child who had both breast and bottle.

The subject of the care and feeding of infants has been dealt with in as simple language as possible, in the leaflet appended. This leaflet is given to every person who registers the birth of a child.

Zymotic Diseases.—The seven principal Zymotic diseases caused 79 deaths, giving a Zymotic death rate of 1·8

The following table compares the number of deaths from each of the seven chief Zymotic diseases with the deaths of previous years:—

TABLE VI.

Diseases	5 Years 1871-5	5 Years 1876-80	5 Years 1881-5	5 Years 1886-90	5 Years 1891-5	1896	1897	1898
Population	16735	207 0	25148	30073	36350	40600	41600	43500
Smallpox	5 0	0·0	3·0	0·0	0·6	0	0	0
Scarlatina	9·0	12·0	8·2	3 0	3·6	8	4	1
Measles	1·0	2·4	6 2	5·6	6·2	5	16	10
Typhoid Fever ...	7·6	4·6	2·8	3·8	3 0	3	4	6
Diphtheria	3·8	3·0	2·6	4 6	3 6	24	6	2
Whooping Cough ..	3·8	5 6	8·2	10·2	9·4	14	4	11
Diarrhœa	10·4	12·8	13·0	13·4	14·0	27	45	49
Totals ...	40·6	41·4	44·0	40·6	40·2	81	79	79
Mortality per 1000 ...	2·4	1·9	1·7	1·35	1·1	2·0	1·9	1 8
Per cent. of total deaths	15·2	13·8	12·5	11 07	8·0	14·9	·5·6	13·7

In the following table the death-rate of each of the above Zymotic diseases is compared with those of former years.

TABLE VII.

Diseases	5 Years 1871 75	5 Years 1876-80	5 Years 1881-5	5 Years 1886·90	5 Years 1891-5	1896	1897	1898
Smallpox ...	·29	·00	·11	·00	·14	·00	·00	0·00
Scarlatina ...	·53	·57	·33	·09	·08	·19	·09	0·02
Measles	·06	·11	·24	·18	·16	·12	·38	0·23
Typhoid Fever...	·45	·22	·11	·12	·08	·07	·09	0·09
Diphtheria ...	·22	·14	·10	·15	·09	·59	·14	0·05
Whooping Cough	·22	·27	32	·33	·23	·34	·09	0·25
Diarrhœa ...	·62	·66	·51	·44	·37	·66	1·08	1·12

Again SMALLPOX does not appear as a cause of death.

SCARLATINA caused 1 death, which occurred at the Infectious Hospital, early in the year in the case of a patient admitted in 1897. In 1897 there were 4 deaths.

MEASLES caused 10 deaths. With regard to this disease it should be always borne in mind that in young children it is a *dangerous infectious disease*, and all cases of measles should be isolated and nursed as carefully as any other dangerous infectious disease. In 1897 there were 16 deaths. The same remarks apply equally well to WHOOPING COUGH, which caused 11 deaths, as compared with 4 in 1897.

TYPHOID FEVER caused 6 deaths this year, one occurring in the Birmingham General Hospital.

DIPHTHERIA caused 2 deaths.

DIARRHŒA caused 45 deaths, 34 in infants under one year old and 5 in children from one to five years old. To these should be added the 15 deaths from Enteritis, 12 occurring in infants under one year old.

There can be no doubt that deaths from the same disease are indifferently certified as due to "Diarrhœa" and "Gastro-enteritis" respectively. This procedure creates confusion in our classification, seeing that Diarrhœal deaths are classified as deaths due to Zymotic disease, whilst deaths due to "Gastro-enteritis" are included in diseases of the digestive organs. The amount of disturbance of our statistics produced in this way is seen from the figures appended—the only figures available in the years 1875-1897.

	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898
Deaths certified as due to Diarrhœa... ...	17	18	9	15	27	4	15	27	45	49
Deaths certified as due to Gastro-enteritis or Enteritis	3	5	10	11	10	8	20	22	15	21
Total ...	20	23	19	26	37	12	35	49	60	70
Total death rate per 1000	0·66	0·74	0·57	0·75	1·01	0·31	0·88	1·26	1·44	1·6

These figures being correct, it is evident that the diarrhœal mortality has increased progressively during the past three years. Since deaths certified as being due to "Diarrhœa" amount to more than three-fifths of the mortality due to the seven principal Zymotic Diseases, the modes of prevention of this "preventable" disease cannot be too strongly brought before you. I therefore quote from my last year's report the following :—

"All theories apart, we know that diarrhœa depends "upon certain meteorological conditions and upon certain "conditions of the soil, acting together. Numerous observa"tions have shown that a loose porous soil, charged with "organic matter, favours diarrhœal diseases, and that the "tendency to these diseases is at a maximum when the "temperature of the soil reaches 56°F at a depth of four feet "from the surface ; a certain degree of moisture of the soil is "also requisite. In open districts, with good ventilation, the "diarrhœal mortality is very low compared with that of more "crowded localities. Handsworth, at the present time, is

" rapidly losing its rural and assuming an urban condition. " It is therefore incumbent on your Council to see to it that " the soil be kept as free from impurities as possible, and that " poisonous emanations from the soil be shut off from the " houses. The former condition is attained by having all " sewage matters carried away from the houses as rapidly as " possible without soaking in the soil, and the latter condition " is satisfied by having a layer of concrete, at least six inches " thick, on the surface of the ground below every dwelling " house, in addition to the usual damp-proof courses.

" In the New-Building Bye-laws which you are now " formulating, I hope you will have these two conditions ever " before you, as also the provision of ample means of " ventilation in and about dwelling houses."

In July there were 2 deaths from diarrhœal diseases, in August 27, in September 26.

The temperature of the soil at a depth of four feet rose to its maximum, 56°·1, at the Edgbaston Observatory in the third week in August. This is the highest temperature of the soil in the years 1895-8. Incidentally it may be mentioned that in September two adult males died of Heat apoplexy in Handsworth.

Tubercular Diseases. Forty four deaths were registered as due to this class of diseases, as compared with 51 in 1897, 52 in 1896, and 42 in 1895. The rate was 1·0.

We know now that Tubercular diseases are preventable; that they are due to the growth in the body of a micro-organism which may be conveyed into it through the medium of cow's milk or the flesh of animals affected with the disease. In addition to the presence of the micro-organism another factor is requisite for infection and that is a certain receptivity of the body. This condition of the body is in the main, brought about by insanitary conditions, and is prevented by living in an atmosphere supplied abundantly with pure fresh air. To preserve the public health therefore, our milk and meat supplies should be beyond the reproach of Tubercular infection, and insanitary conditions should be remedied.

Cancer. Thirty five deaths were due to Cancer and malignant diseases of various organs. The death rate is 0·80, the average of the preceding seven years being 0·61

Injuries. Twelve deaths were due to Violence. The death rate was 0·28 as compared with 0·3 last year.

MEASURES TAKEN TO PREVENT THE SPREAD OF INFECTIOUS DISEASE.

NOTIFICATION OF INFECTIOUS DISEASES. In the following table the cases notified in each quarter of the year are given.

TABLE VIII.

	Smallpox	Scarlatina	Diphtheria	Membranous Croup	Typhus Fever	Typhoid Fever	Continued Fever	Relapsing Fever	Puerperal Fever	Cholera	Erysipelas		Totals
1st Quarter	...	31	5	...	...	14	...	...	...	...	7		57
2nd "	...	17	4	...	...	5	...	...	3	...	6		35
3rd "	...	12	7	...	..	4	...	...	1	...	3		27
4th "	...	28	13	2	...	8	...	...	...	...	8		59
Totals ...	...	88	29	2	...	31	...	..	4	...	24		178

Since the Infectious Diseases (Notification) Act came into force, on March 1st, 1890, the numbers of cases notified of each disease per 1000 of the population, that is to say, the attack-rates are given for each year in the following table:—

TABLE IX.

Disease.	1890 10 months	5 years 1891-5	1896	1897	1898
Smallpox	...	0·83	...	..	...
Scarlatina	6·71	4·57	7·48	5·19	2·02
Diphtheria	1·61	0·53	2·41	1·13	0·67
Membranous Croup ..	...	0·03	0·07	0·04	0·04
Typhus Fever	...	..	...	...	...
Typhoid ,, ...	0·64	0·44	0·61	0·60	0·71
Continued ,, ...	...	...	...	0·02	...
Relapsing ,, ...	...	...	...	...	...
Puerperal ,, ...	0·03	0·05	0·05	0·04	0·09
Cholera	...	...	..	...	...
Erysipelas	0·26	0·54	0·89	0·36	0·88
Totals ...	9·25	7·00	11·02	7·38	4·09

None of the cases of SCARLATINA notified this year died. In 1897, one death occurred in every 54 cases; in 1896, one in 38; and in 1895, one in 22.

Of the cases of DIPHTHERIA notified, one in every 14·5 cases died; in 1897, one in 8; in 1896, one in 4; in 1895, one in 6. The fatality of the disease is apparently becoming distinctly less, and this satifactory result is probably due to the general use of diphtheria anti-toxin in these cases.

TYPHOID FEVER had the high fatality of one in every 5 cases notified. In PUERPERAL FEVER there was one death in 4 notified cases.

ERYSIPELAS had one death among the 24 notified cases. There were no deaths in 1895-7.

GENERAL PROCEDURE.—As soon as possible after notification of an infectious disease is obtained the infected premises are visited and examined, and any sanitary defects are noted. An inquiry is made as to the population residing on the premises; their food supply, water supply, laundress, the schools attended, the means of isolation available and the origin of the infection. These particulars are registered by the Medical Officer. After the patients have been removed to the Hospital, or have recovered at home, the infected rooms are fumigated with sulphur, and the infected bedding and clothes are disinfected. In the mean-time notice has been given to the schools attended, of the existence of infectious disease in the infected houses, so that children residing at these houses may be kept away from school until all danger of spreading disease is past. The attention of the owners of houses is called to any sanitary defect in the usual way. The premises are further visited from time to time as deemed necessary. During the past year 627 visits were thus paid, 87 notices were sent to schools, 113 houses or parts of houses were fumigated, 96 houses or parts of houses were stripped and lime-washed, 95 lots of bedding, &c., comprising 1,319 articles were disinfected by heat at the Aston disinfecting station.

PROCEDURE IN SPECIAL CASES.

MEASLES.—This disease is not notifiable in this district, but the School Board attendance officers, by order of their Board, notify weekly any cases of infectious disease which they may find.

On May 24th Mr. Bayliss, attendance officer of the School Board, called my attention to an outbreak of Measles at the St. James' School. There were 35 cases among 165 infants, 8 in 158 girls, and 9 in 251 boys. In the Infants' School the attendance had fallen from 94 to 81 per cent. The 52 cases were nearly all in Brearley and Brewery Streets, though five cases were in scattered streets widely apart where no other cases of Measles could be found. The first case at the school was visited, and no origin could be found, the child not having been away from home for some time. I recommended your Authority to close the school as it seemed to be a focus of infection. This was done on May 25th, and the schools remained closed until June 13th. Mr. Bayliss, who was most vigilant in looking up the cases, found that only one case among the scholars arose after May 25th, and that when the school re-opened there was a good attendance.

Smallpox.—Provision is made for the isolation of cases in the Infection Hospital of the West Bromwich Corporation. No cases were notified in 1898.

Vaccination.—The following returns are furnished by the Vaccination Officer and relate to the whole Parish of Handsworth for the years ending June 30th, 1894, 1895, 1896, 1897, and 1898 respectively.

	Births Registered	Successfully vaccinated	Insusceptible	Had Small-pox	Died unvaccinated	Postponed	Removed to other district—traced	Removed—unknown	Defaulters	Re-vaccinated	Per centage of Defaulters	Conscientious objectors
1894	976	716	12	0	77	42	18	68	43	361	4·4	...
1895	1072	684	13	0	83	57	4	10	221	18	20·6	..
1896	1046	561	7	0	97	47	0	0	339	(?)	32·4	...
1897	1138	569	4	0	101	61	0	0	403	(?)	35·4	...
1898	1189	497	6	0	106	46	0	0	524	(?)	44·1	10

It is to be hoped that those responsible for the great increase in the number of "defaulters" will reconsider the subject of vaccination, and will submit themselves and their children to vaccination and re-vaccination, so that they may be preserved from the risk of disfigurement, maiming and death involved in an attack of Small-pox.

I feel bound to quote from my report for 1896 the following :—

"The Royal Commission appointed to enquire into the subject of Vaccination, on May 29th, 1889, issued its final report in August, 1896, eleven commissioners signing the report and two dissenting. On page 99 they state concerning Vaccination and Small-pox. 'We think :—

(1) That it diminishes the liability to be attacked by the disease.

(2) That it modifies the character of the disease and renders it (*a*) less fatal, and (*b*) of a milder or less severe type.

(3) That the protection it affords against attacks of the disease is greatest during the years immediately succeeding the operation of vaccination. It is impossible to fix with precision the length of this period of highest protection. Though not in all cases the same, if a period is to be fixed, it might, we think, fairly be said to cover in general a period of nine or ten years.

(4) That after the lapse of the period of highest protective potency, the efficacy of vaccination to protect against attack rapidly diminishes, but that it is stiil considerable in the next quinquennium and possibly never altogether ceases.

(5) That the power to modify the character of the disease is also greatest in the period in which its power to protect from attack is greatest, but that its power thus to modify the disease does not diminish as rapidly as its protective influence against attacks, and its efficacy during the later periods of life to modify the disease is still very considerable.

(6) That re-vaccination restores the protection which lapse of time has diminished, but the evidence shows that this protection again diminishes, and that to ensure the highest degree of protection which vaccination can give, the operation should be at intervals repeated.

(7) That the beneficial effects of vaccination are most experienced by those in whose case it has been most thorough. We think it may fairly be concluded that where the vaccine matter is inserted in three or four places, it is more effectual than when introduced into one or two places only—and that if the vaccination marks are of an area of half a square inch, they indicate a better state of protection than if their area be at all considerably below this.' "

In paragraph 434 they state—" A careful examination of the facts which have been brought under our notice has enabled us to arrive at the conclusion that, although some of the dangers said to attend vaccination are undoubtedly real, and not inconsiderable in gross amount, yet when considered in relation to the extent of vaccination work done they are insignificant. There is reason further to believe that they are diminishing under the better precautions of the present day, and with the addition of the further precautions which experience suggests will do so still more in the future."

In his report to the Vaccination Commission on the recent epidemic of Smallpox at Gloucester, Dr. Sidney Coupland states (p. 18) . . . " in the epidemic here under notice, the severity of the disease, its high mortality, and its propagation were influenced and promoted by the unduly large proportion of unvaccinated children who were exposed to infection, and who were infected." In 1894, at Gloucester, the per centage of children born during the year and classed as " defaulters " in the matter of Vaccination was 85·2.

SCARLATINA.—Provision is made for the isolation of these cases at the West Bromwich Infectious Hospital. Of the 88 cases notified 51 were isolated in the Hospital and one in the City Hospital. The cases occurred in 70 houses.

In 2 instances 3 cases occurred in one house.
,, 14 ,, 2 ,, ,, ,, ,,
,, 54 ,, 1 ,, ,, ,, ,,

In two of the last mentioned houses cases had occurred last year.

Of the cases notified 4 were from 1—2 years old ; 5 from 2—3 ; 7 from 3—4 ; 8 from 4—5 ; 31 from 5—10 ; 12 from 10—15 ; 8 from 15 to 25 ; and 5, 25 years and upwards. No deaths occurred among these cases. There was no evidence of any other mode of infection than the direct infection of person by person.

Diphtheria and Membranous Croup.—No provision is made for the isolation of these cases. One case was treated in the Children's Hospital, Birmingham. One case was notified twice in the year in April and September, and on the latter occasion characteristic bacilli were found in the throat.

The 31 cases occurred in 23 houses. One house had 3 cases in it, 6 had 2 cases each, and 16 houses had single cases.

Of the cases certified, 7, who recovered, were under 5 years old ; 24 were over 5 years old and two of these died.

In 11 of the 23 infected houses no apparent sanitary defect was found. In one of these cases the infected person had been examining gas meters in some cellars which were flooded with sewage, in another case the infected child had been watching the operation of cleansing a foul road gulley a few days before his attack, in a third case the cellar was said to have been flooded with a foul liquid, but no offensive odour could be detected although the cellar was damp when inspected.

Eight of the houses had foul offensive privy-middens ; in one case the attack was attributed to the overpowering odour caused by emptying the middens ; in another of these houses the case was fatal.

In one house the siphon of the w.c. leaked ; in another the basin was corroded and the bath waste pipe was not disconnected from the drain ; a third house had the soil pipe ventilating shaft opening near to, and on the level of, the bedroom window of the infected person ; a fourth house had no ventilation of the drains though no smells were complained of ; this house had two cases— one fatal.

Eleven of these cases were examined by me to ascertain the presence or absence of diphtheria bacilli ; in 8 cases the bacilli were found and in 3 the result was negative. In future specimens from the suspected cases of Diphtheria may be sent to Mason College, Birmingham, for examination under an arrangement between the College and the County Council of Staffordshire. The necessary boxes, swabs, envelopes and forms may be had of the Medical Officer of Health, or of the Caretaker at the Council House.

The following figures give the numbers of cases of Scarlatina and Diphtheria, and of infected houses, members of which attended public elementary and private schools within the district, and all schools outside the district.

		Within the District.				Outside the District.	
		Public Elementary Schools.		Private Schools.		All Schools.	
		Cases.	Houses	Cases	Houses	Cases	Houses
Scarlatina ...	1896	153	142	34	34	49	49
Ditto ...	1897	84	88	21	22	26	30
Ditto ...	1898	25	30	9	12	11	19
Diphtheria ..	1896	41	37	9	9	13	13
Ditto ..	1897	10	10	5	6	3	5
Ditto ...	1898	6	9	5	4	1	3

Note.—Some houses have two cases of illness in Scholars, in some houses the infected persons are not Scholars ; hence the cases and houses do not correspond.

Enteric (Typhoid) Fever.—The 31 cases occurred in 26 houses. Two houses had 3 cases each, one house had 2 cases, and 23 houses had single cases. Of the 26 houses 13 had privy-middens as the only convenience, 1 had a w.c. inside and a privy-midden outside, 10 had outdoor w.c.'s, and 2 had in and outdoor w.c.'s. Thus 14 out of 26, or roughly 54 per cent., of the cases occurred in houses having privy-middens, whereas the proportion of the whole number of houses having privy-middens in the district was nearly 33 per cent. at the end of the year.

One of the sufferers had been nursing a case notified last year. The house in which two cases occurred had a case in it at the end of last year, in the person of the mother who had nursed one of the secondary cases last year. This house had a wet and offensive ashpit. One of the fatal cases was the night-soil contractor.

When a case of typhoid fever occurs in a house having a privy-midden the midden is at once thoroughly cleaned out and the walls and floor are dredged with strong Izal powder. At the same time an iron pail with tight fitting lid is left at the house to receive the stools, mixed with Izal peat supplied with the pails. The pails are collected periodically and their contents burnt in the Destructor.

Puerperal Fever.—No origin could be made out in the 4 cases of puerperal fever. The houses were apparently healthy.

Erysipelas.—The 24 cases of Erysipelas occurred in 24 houses, 12 of which had outdoor w.c.'s, 2 had indoor w.c.'s and outdoor privy-middens, whilst 10 had privy-middens as the only convenience. The incidence of the disease on the privy-midden houses was out of proportion to their number.

GENERAL SANITARY MATTERS.

Refuse Disposal.—At the end of the year a census was taken of the ashpits when it was found that 6765 houses were provided with dry ashpits and 3324 had privy-middens. The exact number of ashpits, &c., was not determined. The privy-middens and dry ashpits are emptied and cleansed by the District Council. The contents of the privy-middens are disposed of in the neighbourhood for agricultural purposes. The dry ashes are to be burnt in the Destructor.

I think the dry ashes would be better and more economically collected if moveable receptacles were gradually substituted for the present ashpits. This would get rid of the present unsightly and probably unhealthy method of collecting the refuse in heaps in the streets preparatory to carting it away.

The sewers are in connection with the outfall sewers of the Birmingham Tame and Rea District Drainage Board.

Water Supply.—The district is supplied by the Birmingham Corporation Water Department. A few wells still exist. I made analyses of the water from wells which supplied two dairy farms in the district. One was good and one was bad. After the latter well had undergone repairs the water was of better quality.

I hope that soon we shall be enabled to disinfect the infected clothing, etc., at the Queen's Head Road Depôt.

OTHER SANITARY WORK.

During the year 5154 inspections and observations were made for the discovery and abatement of nuisances within the district, 1205 formal notices were sent out for the abatement of nuisances, and were in 1175 cases followed by the abatement of the nuisances, leaving 30 on the books at the end of the year. This shows an increase in the year of 815 inspections, &c., 221 notices, and of 216 nuisances abated, as compared with the figures for 1897.

Final notices to the number of 104 were sent out.

No summonses were taken out during the year, the whole of the work being executed in a satisfactory manner without recourse to legal proceedings.

In 302 cases, privies and middens were converted into water-closets and dry ashpits or receptacles after notice had been served on the owners, in addition to many which were converted without notice on the suggestion of Mr. Hodges. An increase of 35 as compared with the year 1897.

SLAUGHTER-HOUSES.—The 12 slaughter-houses in the district have been inspected on 157 occasions. In 8 cases notices were served to abate nuisances.

In one case the slaughter-house was properly paved and re-drained and connected with main sewer. In three cases the drains were taken up and traps fixed outside the slaughter-houses, the floors in these cases were also re-paved, the bricks being set in cement.

One seizure of tuberculous meat was made, but further proceedings were not deemed advisable.

BAKEHOUSES.—The 36 bakehouses registered in the district were inspected on 105 occasions and in 7 cases notices to cleanse and limewash were served. By the Factory and Workshops Act, 1895, all bakehouses come under the regulations of Sec. 15 of the Act of 1883, and no more cellar bakehouses are allowed.

During the year 2 bakehouses have been demolished, 2 are at present void, and 1 new bakehouse erected.

COWSHEDS AND DAIRIES.—The premises of 24 registered cowkeepers have been inspected on 75 occasions, and in 12 cases notices to abate nuisances were served.

In 3 cases the sheds have been properly paved and drained, and the drains in 4 cases have been removed from inside the sheds and fixed outside.

The premises of the 83 milkshops and dairies on the register were inspected on 123 occasions and found in a satisfactory state. In 3 cases notices to abate nuisances were served.

Workrooms and Workshops.—The 74 workrooms and workshops in the district were visited on 85 occasions. In 2 cases notices to cleanse and limewash were served, and in 3 cases notices to abate nuisances were given. In 1 case workrooms were found to be very much overcrowded, and steps were taken to abate the nuisance.

Unwholesome Food.—In November Mr. Hodges seized and had condemned and destroyed 14 rabbits which were in a putrid condition and exposed for sale in a cart in Chapel Street. The owners were summoned before the magistrates and fined £2 2s. 0d., with £2 14s. 0d. costs.

Scavenging.—During the year 6189 applications for emptying ashpits were received and handed on to the Surveyor who reports that 20649 ashpits were emptied during the year. The destructor for house refuse is working satisfactorily.

The Surveyor reports :—

" I beg to report to you that during the year ending " December 31st, 1898, 269 building plans and 35 street plans " were submitted of which 189 building plans and 29 street " plans were approved, representing 933 houses and shops, " 1 suite of new schools, 71 alterations and additions and 29 " new streets, the length of the new streets for which plans " were approved being 7563 yards (about 4⅓ miles), the length " of the new sewers being 6986 yards.

" During the previous year the figures were as under, " namely, 182 building plans and 11 new street plans were " submitted, of which 143 building plans and 11 street plans " were approved, representing 954 houses and shops, 1 bake " house, 11 streets and 63 alterations and additions, the length " of new streets for which plans were approved the previous " year being 1727 yards."

TABLE X.

Deaths of Residents of Handsworth in Ten Age-groups Classified According to the Causes of Death.

Causes of Death.	0 to 1 year	1 to 5 yrs.	5 to 15 yrs.	15 to 25 yrs.	25 to 35 yrs.	35 to 45 yrs.	45 to 55 yrs.	55 to 65 yrs.	65 to 75 yrs.	75 up-wds	Total.
I.—Specific Febrile or Zymotic Diseases											
(1) *Miasmatic Diseases*											
Smallpox	...	...	...	...	...	...	...	...	...	...	
Measles	2	7	1	...	...	...	...	...	...	...	10
Scarlatina	...	1	...	...	..	...	...	...	...	...	1
Typhus Fever	...	...	...	...	...	...	...	..	...	...	
Whooping Cough	4	7	...	...	...	...	...	...	...	...	11
Diphtheria	...	...	1	1	..	...	...	...	...	...	2
Continued Fever	...	...	...	...	...	...	...	...	...	...	
Enteric Fever	...	..	...	1	2	2	1	...	...	...	6
Influenza	...	2	...	...	...	1	...	2	1	...	6
Other Miasmatic Diseases	...	...	...	...	...	...	...	...	...	...	
(2) *Diarrhœal Diseases*											
Simple Cholera	...	...	...	...	...	...	...	...	...	...	
Diarrhœa, Dysentery	44	4	...	...	...	...	...	...	...	1	49
(3) *Malarial Diseases*											
Remittent Fever	...	...	...	...	...	...	...	...	...	...	
Ague	...	...	...	...	...	...	...	...	...	...	
(4) *Zoogenous Diseases*											
Cowpox and effects of Vaccination	...	...	...	...	...	...	...	...	...	...	
Other diseases (*e.g.*, Hydrophobia, Glanders, and Splenic Fever)	...	...	...	...	..	...	...	...	...	...	
(5) *Venereal Diseases*											
Syphilis	2	...	...	...	...	..	...	...	...	...	2
Gonorrhœa, Stricture of Urethra	...	...	...	...	...	...	...	...	...	...	
(6) *Septic Diseases*											
Erysipelas	.	...	...	...	..	...	1	...	...	...	1
Pyaemia, Septicaemia	...	...	...	...	...	...	...	...	...	...	
Puerperal Fever	...	...	...	...	1	...	...	...	...	...	1
II.—Parasitic Diseases											
Thrush & other Vegetable Parasites	1	.	...	...	...	...	...	...	...	...	1
Worms, Hydatid, and other Animal Parasites	...	...	...	...	...	...	...	...	...	...	
III.—Dietic Diseases											
Want of Breast Milk	...	..	..	...	...	...	...	...	...	...	
Starvation	...	...	...	...	...	...	...	...	...	..	
Chronic Alcoholism	...	..	..	...	1	2	1	1	...	...	5
Delirium Tremens	...	...	...	...	...	...	1	...	...	...	1
IV.—Constitutional Diseases											
Rheumatic Fever, Rheumatism of Heart	..	...	..	1	...	1	2	...	...	...	4
Chronic Rheumatism	..	.	...	...	...	1	...	...	1	...	2
Gout	..	...	...	...	...	1	1	...	1	...	3
Rickets	...	1	...	...	...	...	...	...	...	...	1
Cancer, Malignant Disease	..	1	...	1	1	6	7	11	7	1	35
Tabes Mesenterica	1	1	...	...	1	...	...	...	...	...	3
Tubercular Meningitis Acute Hydrocephalus	2	5	1	...	...	...	...	...	...	...	8
Phthisis		...	2	5	7	5	2	...	...	...	21
Other forms of Tuberculosis Scrofula	1	1	2	...	...	1	...	...	...	...	5
Hæmophilia, Purpura	..	...	...	...	...	...	...	...	...	...	
Anæmia, Chlorosis, etc.	1	...	...	...	...	1	...	1	...	...	3
Diabetes	..	...	...	...	..	...	...	..	3	1	4
Other Constitutional Diseases	...	...	...	...	...	...	...	...	...	...	
Total carried forward	58	30	7	9	13	21	16	15	13	3	185

TABLE X.—*Continued.*

Causes of Death.	0 to 1 year	1 to 5 yrs.	5 to 15 yrs.	15 to 25 yrs.	25 to 35 yrs.	35 to 45 yrs.	45 to 55 yrs.	55 to 65 yrs.	65 to 75 yrs.	75 up-wds	Total.
Brought forward	58	30	7	9	13	21	16	15	13	3	185
V.—DEVELOPMENTAL DISEASES											
Premature Birth	30	...	...	...	...	...	...	...	...	...	30
Atelectasis, Cyanosis	2	..	1	...	...	...	...	...	...	...	3
Malformations	7	...	...	...	...	...	...	...	...	...	7
Old Age	...	...	...	..	...	...	1	3	9	34	47
VI.—LOCAL DISEASES											
(1) *Diseases of the Nervous System*											
Inflammation of Brain or Membranes ...	...	1	1	1	1	...	..	...	...	...	4
Apoplexy, Paralysis, etc.	...	..	...	...	...	2	2	12	6	6	28
Insanity, General Paralysis of the Insane ...	...	...	...	2	...	1	1	...	...	...	4
Epilepsy	...	...	...	...	...	...	1	...	...	...	1
Convulsions	7	2	...	...	...	...	...	...	...	...	9
Laryngismus Stridulus	...	...	...	...	...	...	...	...	...	...	
Diseases of Spinal Cord Paralysis Agitans, etc.	...	...	...	1	...	1	...	...	1	1	4
Other Diseases of Nervous System	...	...	1	...	...	1	...	...	...	...	2
(2) *Diseases of Organs of Special Sense*											
Eye	..	...	...	...	...	...	...	...	...	...	
Ear	1	...	1	...	...	...	...	...	...	...	2
(3) *Diseases of the Circulatory System*											
Pericarditis	...	...	...	...	..	...	...	...	...	..	
Eudocarditis	...	...	...	...	...	...	...	...	...	...	
Valvular Disease of Heart... ...	...	...	...	1	1	...	1	4	1	...	8
Other Diseases of Heart	...	...	1	...	1	2	3	8	4	4	23
Syncope	1	...	...	...	...	1	2	1	3	7	15
Aneurism	...	...	...	...	...	1	...	...	...	...	1
Embolism, Thrombosis	..	..	...	...	...	...	...	...	1	...	1
Other Diseases of Blood-vessels ...	...	...	...	...	...	...	...	...	1	1	2
(4) *Diseases of the Respiratory System*											
Laryngitis	...	...	...	...	...	..	...	...	...	..	
Croup	...	...	...	..	...	...	...	...	...	...	
Emphysema, Asthma	...	...	..	...	...	...	1	..	...	...	1
Bronchitis	14	1	...	...	...	1	2	7	12	4	41
Pneumonia	9	9	2	2	3	3	3	6	3	3	43
Pleurisy	...	...	...	...	...	...	...	1	...	...	1
Other Diseases of Respiratory System ...	...	...	...	...	...	...	...	...	..	..	
(5) *Diseases of the Digestive System*											
Stomatitis	1	1	...	...	...	...	...	...	...	...	2
Dentition	...	2	...	...	...	...	...	...	...	...	2
Sore Throat, Quinsy	...	...	...	...	...	...	...	...	...	...	
Diseases of Stomach	1		1	...	...	...	...	...	1	1	4
Enteritis	18	2	...	...	...	...	...	...	...	1	21
Intestinal Obstruction	...	...	...	...	...	...	...	1	...	1	2
Hernia	...	...	...	...	...	...	...	...	1	...	1
Peritonitis	...	...	1	...	...	1	...	...	...	...	2
Ascites	...	...	...	...	...	...	...	...	...	...	
Cirrhosis of Liver	...	...	...	...	...	...	1	1	...	...	2
Jaundice and other Diseases of the Liver ...	1	...	...	-	.	...	...	1	2	1	5
Other Diseases of the Digestive System ...	2	...	2	1	...	...	...	...	...	1	6
(6) *Diseases of the Lymphatic System and of Ductless Glands*											
Diseases of the Spleen	...	...	...	.	...	...	...	...	..	...	
Diseases of the Lymphatic Glands	...	...	...	...	...	...	...	...	...	...	
Total carried forward ...	152	48	18	17	19	35	34	60	58	68	509

TABLE X.—*Continued.*

Causes of Death.	0 to 1 year	1 to 5 yrs.	5 to 15 yrs.	15 to 25 yrs.	25 to 35 yrs.	35 to 45 yrs.	45 to 55 yrs.	55 to 65 yrs.	65 to 75 yrs.	75 up-wds	Total.
Brought forward	152	48	18	17	19	35	34	60	58	68	509
Bronchocele	...	...	...	...	...	...	...	...	...	...	
Addison's Disease	...	...	...	...	...	...	...	...	...	...	
(7) *Diseases of Urinary System*											
Nephritis	...	...	...	...	1	1	...	1	...	...	3
Bright's Disease, Albuminuria ...	1	...	1	...	1	...	3	3	...	3	12
Diseases of Bladder and Prostate	...	...	...	...	...	...	...	...	1	...	1
Other Diseases of Urinary System	...	...	...	...	...	...	...	...	...	...	
(8) *Diseases of Reproductive System*											
(*a*) *of Organs of Generation*											
Male Organs	...	...	...	...	...	...	...	...	...	...	
Female Organs	...	...	...	1	...	...	...	...	1	...	2
(*b*) *Of Organs of Parturition*											
Abortion, Miscarriage	...	...	...	...	...	1	...	...	...	...	1
Puerperal Convulsions	...	...	...	...	...	...	...	...	...	...	
Placenta Prævia, Flooding ...	...	...	...	...	...	...	...	...	...	...	
Other Accidents of Child Birth ...	...	...	...	...	1	1	...	...	...	...	2
(9) *Diseases of Locomotor System*											
Caries, Necrosis	...	...	1	...	1	...	...	...	...	...	2
Arthritis, Ostitis, Periostitis ...	...	...	...	...	...	...	...	...	...	...	
Other Diseases of Bones and Joints	...	...	...	...	...	...	...	...	...	...	
(10) *Diseases of Integumentary System*											
Carbuncle, Phlegmon	...	...	...	...	...	...	...	...	...	...	
Other Diseases of Integumentary System	...	...	...	...	...	...	...	...	...	...	
VII.—DEATHS FROM VIOLENCE											
(1) *Accident or Negligence*											
Fractures, Contusions	...	1	1	1	...	1	...	1	...	1	6
Gunshot Wounds	...	...	...	...	...	...	...	...	...	...	
Cut, Stab	...	...	...	...	...	...	...	...	...	...	
Burn, Scald	...		...	...	...	...	...	...	1	...	1
Poison	...	...	...	...	...	...	.	...	...	...	
Drowning	1	...	...	...	...	...	...	...	1	...	2
Suffocation	...		...	...	...	...	...	...	...	...	
Otherwise	...	...	...	1	1	...	...	...	...	...	2
(2) *Homicide*											
Manslaughter	...	...	...	...	...	...	...	...	...	...	
Murder	...	...	...	...	...	...	...	...	...	...	
(3) *Suicide*											
Gunshot Wounds	...	...	...	1	...	...	...	...		...	1
Cut, Stab	...	...	...	...	...	...	...	...	...	...	
Poison...	...	...	...	...	...	...	...	...	...	...	
Drowning	...	...	...	...	...	...	...	...	...	...	
Hanging	...	...	...	...	...	...	...	...	...	...	
Otherwise	...	...	...	...	...	...	...	...	...	...	
(4) *Execution*											
Hanging	...	...	...	...	...	...	...	...	...	...	
VIII.—DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES											
Dropsy	...	...	...	...	...	...	...	...	...	...	
Debility, Atrophy, Inanition ...	18	1	...	...	...	...	...	...	...	...	19
Mortification...	...	...	.	...	...	...	...	...	.	...	
Tumour	...	...	...	...	...	...	...	...	...	...	
Abscess	...	...	...	...	...	...	...	...	...	...	
Hæmorrhage...	...	...	...	...	...	...	...	...	...	...	
Sudden Death (cause not ascertn'd)	...	...	...	...	...	...	...	.	...	...	
Causes not Specified or Ill-defined	4	...	...	...	...	...	...	1	...	..	5
Uncertified	5	...	...	...	...	...	...	...	1	2	8
Total	181	50	21	21	24	39	37	66	63	74	576

(A). TABLE of deaths registered during the year 1898, in the Urban Sanitary District of Handsworth, classified according to Diseases, Ages, and Localities: showing also the Population of such Localities, and the Births therein during the year.

TABLE XII.

Names of Localities adopted for the purpose of these Statistics: Public Institutions being shown as separate Localities.	Population		Registered Births.			Deaths from all causes at subjoined ages.										Mortality from subjoined causes, distinguishing deaths of children under 5 years of age.																				
						At all ages														Fevers.																
	Census, 1891.	Estimated to middle of 1898.	Males.	Females.	Total.	Males.	Females.	Total.	Under 1 year.	1 year and under 5.	5 years and under 15.	15 years and under 25.	25 years and under 65.	65 years and upwards.		Small-pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus	Enteric or Typhoid	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhœa or Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease	Injuries.	All other Diseases.	Total.
HANDSWORTH … … …	32756	43500	619	612	1231	275	260	535	180	49	18	19	153	116	Under 5	…	..	…	…	…	…	…	…	…	…	…	9	11	48	..	…	34	1	2	124	229
															5 upwds.	..	…	2	…	…	5	…	…	1	…	1	1	…	1	4	20	48	37	…	~~[illegible]~~6 186	306
Deaths occurring outside the District among persons belonging thereto which may be added to the above in estimating the rate of mortality.						28	18	46	1	1	3	2	18	21	Under 5	…	1	…	…	…	…	…	…	…	..	…	…	…	..	…	…	…	…	…	1	2
															5 upwds.	…	…	…	…	…	1	…	…	…	…	…	…	…	…	…	1	3	8	8	23	44
Deaths occurring within the District among persons not belonging thereto which may be deducted from the above totals in estimating the rate of mortality. … … … … … … …						5	…	5	…	…	…	…	5	…	Under 5	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…
															5 upwds.	…	…	…	…	…	…	..	…	…	…	…	…	…	..	…	…	…	1	3	1	5

(B). New Cases of Infectious Sickness coming to the knowledge of the Medical Officer of Health during the year 1898, enumerating the Number of Houses Infected, the Total Number of Deaths, also the number of Cases Treated, and the Deaths that occurred in Infectious Hospitals.

TABLE XIII.

		Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
Houses infected … … .. … …		..	70	22	1	…	26	…	…	4	…	24	?	?
Total cases reported among persons belonging to District. … … … …	Under 5	…	24	5	2	…	1	…	…	..	..	2	…	…
	5 upwds.	…	64	24	…	…	30	…	…	4	..	22	…	…
Total deaths reported among persons belonging to District. … .. …	Under 5	…	1	…	…	…	…	…	…	…	…	…	9	11
	5 upwds.	…	0	2	…	…	6	…	…	1	..	1	1	…
Cases treated in Hospital among persons belonging to District … …	Under 5	…	15	…	…	…	…	…	…	…	…	…	…	…
	5 upwds.	…	37	…	…	…	…	…	..	…	…	…	…	…
Deaths occurring in Hospital among persons belonging to district.	Under 5	…	1	…	…	…	…	…	…	…	…	…	…	…
	5 upwds.	…	…	…	…	…	…	…	…	..	…	…	…	…

SUMMARY OF THE FOREGOING.

Showing mortality at different ages, and from different classes of disease, compared with rates for 7 years, 1891-7.

TABLE XI.

	Totals.	Rate per 1000	
		1898	1891-7
Births	1231	28·3	25·2
Deaths	576	13·2	12·6
Deaths under one year	181	...	...
Over one and under five	50	...	...
Over sixty-five	137	...	...
All Zymotic diseases	89	2·0	1·7
Tubercular diseases	37	0·9	1·1
Diseases of Lungs	86	2·0	2·2
Heart diseases	59	1·1	0·8
Cancer	35	0 8	0·6
Injuries	12	0·3	0·3
From all other causes	267	6·1	5·7

SUMMARY OF SANITARY WORK

Done in the Inspector of Nuisances' Department during the year 1898, in the Urban Sanitary District of Handsworth.

		Inspections and Observations made	Formal Notices by Authority	Nuisances Abated after Notice
Dwelling-houses and Schools	Foul Conditions	114	34	32
	Structural Defects...	133	40	35
	Over-crowding	53	16	15
	Unfit for Habitation			
	Lodging-houses			
	Dairies and Milkshops	117	3	3
	Cowsheds	75	12	12
	Bakehouses	105	7	7
	Slaughter-houses	157	8	8
	Canal Boats			
	Ashpits and Privies	1704	345	336
	Deposits of Refuse and Manure	187	57	57
	Water Closets	391	105	105
House Drainage	Defective Traps	1153	237	236
	No Disconnection	108	26	25
	Other Faults	504	202	194
	Water Supply	23	4	4
	Pigsties			
	Animals improperly kept...	82	27	27
	Offensive Trades			
	Smoke Nuisances	14	3	3
	Other Nuisances	234	79	76
	Totals	5154	1205	1175

	Nos.
Seizures of Unwholesome Food	2
Samples of Food taken for Analysis	
,, ,, Found Adultered	
,, of Water taken for Analysis	2
,, ,, Condemned as unfit for use... ...	1

PRECAUTIONS AGAINST INFECTIOUS DISEASE.

Lots of Infected Bedding Stoved or Destroyed ...	95
Houses Disinfected after Infectious Disease	113
Schools ditto ditto	
Prosecutions for not Notifying Existence of Infectious Disease	
Convictions ditto ditto	
Prosecutions for Exposure of Infected Persons or Things	
Convictions ditto ditto	

Signed, ALBERT HODGES, Associ. Sani. Inst.
Inspector of Nuisances.

Date, March 1st, 1899.

CASES OF INFECTIOUS DISEASE NOTIFIED IN THE VARIOUS ROADS.

Road or Street	Smallpox	Scarlatina	Diphtheria	Membranous Croup	Enteric Fever	Continued Fever	Puerperal Fever	Erysipelas
Albert Road	..	3	...	...	...	...	...	...
Albert Street	..	1	...	.	...	...	...	...
Antrobus Road	...	1	...	...	...	...	...	...
Aston Lane	...	5	...	.	...	...	...	...
Birchfield Road	...	2	4	...	...	...	...	2
Booth Street	...	2	...	..	...	...	1	1
Boulton Road	...	...	1	...	1	...	...	...
Brearley Street	...	2	...	...	..	...	...	...
Brewery Street	...	2	...	...	...	.	...	...
Chain Walk	...	...	..	..	1	...	...	...
Chapel Street	...	2	2	.	4	..	...	...
Church Hill	...	1		...	...	...	...	1
Church Vale	...	1	...	...	...	...	...	...
City	...	...	..	...	1	...	...	...
Cornwall Road	...	5	...	...	1	...	...	1
Crockett's Road	...	1	..	...	1	...	...	...
Crompton Road	...	2	1	...	..	...	...	...
Cross Street	...	...	1	...	...	...	...	...
Dawson Road	...	...	...	...	...	...	...	1
Devonshire Road	...	...	3	...	...	...	...	...
Douglas Road	...	...	...	...	1	...	...	1
Emscote Road	...	...	...	...	1	...	...	...
Endwood Court Road	...	1	...	...	...	...	...	...
Fentham Road	...		...	...	1	...	...	...
Finch Road	...	3	...	...	...	...	...	..
Florence Road	...	...	...	...	2	...	...	...
Franchise Street	...	...	...	...	...	...	1	...
Grosvenor Road	...	1	...	...	..	...	...	...
Hall Road	...	...	1	...	..	...	...	...
Hampton Road	...	3	...	...	...	...	..	...
Hamstead Hill	...	1	...	...	...	...	...	...
Hamstead Road	...	1	1	...	...	...	...	...
Hatfield Road	...	1	...	...	...	...	...	...
Haughton Road	...	...	3	...	...	...	...	...
Heathfield Road	...	...	...	...	...	...	...	1
Holdford Road	...	1	1	...	...	...	...	1
Holly Road	...	1	...	...	...	...	...	...
Holyhead Road	...	2	...	..	...	...	...	1
Howard Road	...	...	...	...	...	...	...	1
Hunter's Road	...	...	...	.	...	.	...	1
Leonard Road	...	8	...	..	1	...	..	...
Lime Grove	...	...	...	...	1	...	1	...
Linwood Road	...	3	...	...	1	...	...	...
Total carried forward	...	56	18	...	17	...	3	12

CASES OF INFECTIOUS DISEASES NOTIFIED IN THE VARIOUS ROADS—*Continued.*

Road or Street.	Smallpox	Scarlatina	Diphtheria	Membranous Croup	Enteric Fever	Continued Fever	Puerperal Fever	Erysipelas
Brought forward	...	56	18	...	17	..	3	12
Livingstone Road	...	1	...	...	...	...	...	...
Milestone Lane	...	1	...	...	...	...	...	...
Murdock Road	...	...	...	..	1	...	...	...
Naden Road	...	...	1	...	...	...	...	...
New Inn Road	...	3		...	1	...	...	...
Oxhill Road	...	...	...	...	...	...	...	1
Payton Road	...	...	...	...	1	...	..	..
Putney Road	...	1	.	...	...	...	...	...
Robert Road	...	1	...	...	...	...	...	...
Rookery Road	...	...	...	...	...	...	1	1
St. Peter's Road	...	1	...	...	...	...	...	..
Salisbury Road	...	...	...	...	...	...	...	1
Soho Hill	...	1	2	...	...	...	..	...
Soho Road	...	...	...	...	1	...	...	...
Somerset Road	...	1	...	...	...	...	...	...
Stamford Road	...	2	...	...	...	...	...	2
Station Road	...	2	...	...	...	...	...	...
Terrace Road	...	1	...	...	...	...	...	1
Thornhill Road	...	...	...	...	...	...	...	1
Trinity Road	...	...	1	...	...	...	...	...
Victoria Road	...	...	4	...	1	...	..	1
Wattville Street	...	1	2	...	1	...	...	1
Waverhill Road	...	1	...	...	1	...	...	...
Wellington Road	...	3	...	...	3	...	...	2
Westmihster Road	...	3	...	...	2	...	...	...
Whateley Road		..	...	...	1	...	...	...
William Street West	...	...	1	...	..	...	...	1
Wilson Road	...	5	...	...	...	...	...	...
Wilton Road	...	...	...	..	1	...	..	...
Witton Road	..	1	...	2	...	...	...	...
Wretham Road	...	1	...	...	...	...	...	...
Isolated Houses	...	2	...	...	...	...	...	...
Totals	...	88	29	2	31	..	4	24